AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method for measuring the temperature of a ferromagnetic saucepan for detecting and controlling the temperature of the saucepan, said ferromagnetic saucepan being located near ~~in the vicinity of~~ a heater, said heater having a support made from ferromagnetic metal, wherein an inductive sensor and a control means with evaluation electronics are provided for controlling said heater and the temperature of said saucepan, ~~in which:~~ said inductive sensor and said ferromagnetic saucepan ~~form~~ forming part of a resonant circuit, the method comprising the steps of:

determining a parameter of said resonant circuit ~~is determined~~ on said inductive sensor as a measured temperature value in time ~~behaviour~~ behavior with a curve[[,]];

establishing ~~and~~ from a characteristic segment of said curve the temperature of said saucepan ~~is established,~~;

using the absolute value of said measured temperature value ~~is used~~ at a specific point of said characteristic segment as a desired value for control purposes[[,]];

~~wherein~~ measuring the temperature of said support ~~is measured~~ and using the temperature ~~is used~~ for forming ~~from it~~ a correction value[[,]]; and

~~said correction value is used for~~ correcting said ~~measured~~ resonant circuit parameter using said correction value.

2. (Original) A method according to claim 1, wherein a frequency of said resonant circuit is used as said resonant circuit parameter.

3. (Original) A method according to claim 1, wherein a phase angle in said resonant circuit is used as said resonant circuit parameter.

5. (Original) A method according to claim 4, wherein when said gradient changes, said gradient becomes more shallow.

6. (Original) A method according to claim 1, wherein a boiling point of water in the saucepan is used as said temperature or said desired value.

7 (Original) A method according to claim 1, wherein there is liquid in said saucepan, and when all said liquid in said saucepan is evaporated, a further temperature rise is detected by a second characteristic segment of said measured value curve.

8. (Original) A method according to claim 1, wherein said correction values are stored in conjunction with said temperature of said support, said time or a measured coupling in of energy via said heater.

9. (Original) A method according to claim 1, wherein said temperature measurement and determination of said correction value take place repeatedly.

10. (Original) A method according to claim 1, wherein said temperature is measured by a resistance measuring sensor.

11 (Original) A method according to claim 1, wherein from said temperature of said support is calculated a frequency shift of said resonant circuit parameter.

12. (Original) A method according to claim 1, wherein said inductive sensor is a coil.

13 (Original) A method according to claim 12, wherein there is provided a saucepan detection coil, and said saucepan detection coil is used as sensor.

14. (Original) A method according to claim 13, wherein said saucepan detection coil has only one turn.

15. (Original) A method according to claim 1, wherein in the case of an inductive heater with an induction coil, said induction coil is used as sensor.

16. (Original) A method according to claim 15, wherein said induction coil is provided with an electrical contacting means in an area where said temperature measurement takes place, and through said electrical contacting means there is a subdivision of said induction coil into at least two areas, one part of said induction coil being used for temperature measurement purposes.

17. (Original) A method according to claim 16, wherein in the case of a spiral induction coil, an inner part of said coil is used for temperature measurement.

18. (Original) A method according to claim 17, wherein another part of said coil is short-circuited, and an inner part of said coil is operated with an increased frequency as sensor.

19. (Currently amended) An electrical heating device with temperature measurement, ~~particularly~~ for a hot plate of a cooking area for a metal saucepan, comprising:

~~with~~ a heater for said saucepan, said heater being located on a ferromagnetic support[[,]];

~~with~~ an inductive sensor and evaluation electronics for controlling said saucepan temperature, wherein said inductive sensor, support and saucepan forming part of a resonant circuit[[,]]; and

~~wherein~~ a temperature sensor ~~is provided~~ for measuring a support temperature~~, and~~

wherein said evaluation electronics are constructed for:

detecting a resonant circuit parameter of said inductive sensor as a measured value in time ~~behaviour~~ behavior as a curve, and for determining said temperature from a characteristic segment of said curve,

~~use of~~ using an absolute value of said measured value at a specific point of the characteristic segment of said curve as a desired value for a control,

processing a temperature of said support to a correction value and
correcting said measured resonant circuit parameter with said correction value

20 (Original) Heating device according to claim 19, wherein said frequency is used as said resonant circuit parameter.

21. (Original) Heating device according to claim 19, wherein said inductive sensor is a saucepan detection coil for detecting a metal saucepan in the vicinity of said heater.

22. (Original) Heating device according to claim 19, wherein said heater is an induction heater with an induction coil, and said induction coil is constructed as sensor.

23. (Original) Heating device according to claim 19, wherein said induction coil has an electrical contacting means for subdividing said induction coil into at least a first part and a second part, wherein part of said induction coil is constructed for temperature measurement purposes

24. (Original) Heating device according to claim 23, wherein in the case of a spiral induction coil, an inner part of said coil is constructed for temperature measurement and is connectable to said evaluation electronics and another part of said coil is constructed for being short-circuited.

25 (Original) Heating device according to claim 19, wherein said support is a reception tray made from ferromagnetic material, said heater being located in said reception tray.

26. (New) A method for measuring the temperature of a ferromagnetic saucepan, the ferromagnetic saucepan being located near a heater, the heater having a support made from ferromagnetic metal, wherein an inductive sensor and a control means with evaluation electronics are provided for controlling the heater and the temperature of the saucepan, in which the inductive

sensor and the ferromagnetic saucepan form part of a resonant circuit, the method comprising the steps of:

determining a parameter of the resonant circuit on the inductive sensor as a measured temperature value in time behavior with a curve;

establishing from a characteristic segment of the curve the temperature of the saucepan;

using the absolute value of the measured temperature value at a specific point of the characteristic segment as a desired value for control purposes;

measuring the temperature of the support and using the temperature for forming a correction value; and

using the correction value for correcting the resonant circuit parameter,

wherein the temperature measurement and determination of the correction value take place repeatedly.